

CLAIMS

1. Mechanically and hydrodynamically operated brewing unit (1) for automatic beverage vending machines, comprising:

- a rotatable base (3) provided with a compartment (15) adapted to act as a brewing chamber, said compartment (15) being open on top and comprising a bottom wall (16),
 - means (32) to let water under pressure into said compartment (15),
 - connecting means (18) for conveying the brew to the beverage dispensing point;
- 20 - a brewing head (4) comprising:
 - a hollow containment structure (27),
 - a first hollow piston (28) that is housed within said hollow containment structure (27) movably relative thereto;
 - a second piston (29) that is housed within said first piston (28) movably relative thereto;
 - elastic means (30) opposing the movement of said second piston (29),
- 25 **characterized in that** said first and said second piston (28, 29) are operated by the direct action of a fluid under pressure.

- 2.** Brewing unit (1) according to claim 1, **characterized in that** the movement of said base (3) and said brewing head (4) are controlled and brought about by a kinematic chain of mechanical members.

3. Brewing unit (1) according to claim 2, **characterized in that** said mechanical members comprise a crank (5), a connecting rod (6), a detent lever (13), and a first guiding profile (23) that coordinates the movement of said base (3) with the movement of said brewing head (4).

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4. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** said second piston (29) is provided with a circumferential edge that is so shaped and made as to be able to pierce the material which a capsule (11) of a hermetically sealed 10 type is made of.

5. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** the direction of displacement of the second piston (29) relative to the first piston (28) is determined by 15 the direction of the force resulting between the action of the elastic means (30) and said direct action of the fluid under pressure.

6. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** said bottom wall (16) 20 comprises a plurality of projections (17), each one of which comprises an aperture.

7. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** said fluid under pressure 25 moves within a conduit (34) connected to the containment structure (27).

8. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** said containment structure (27) comprises a safety bleeding provision (35).

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9. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized in that** said fluid under pressure is in its liquid state or in its gaseous state.

10. Brewing unit (1) according to any of the preceding claims or combination thereof, **characterized by** what has been described and/or illustrated in and with reference to the accompanying drawings.